

a rule consciously mimic songs, but only possesses an unusually large series of melodies which it calls forth in wonderful perfection and in most surprisingly clear and melodious tones. To me the thrill of listening to a fluent Mockingbird is much like listening to a symphony where the themes are those which we often associate with other less able or artistic birds.

The author in no wise wishes to belittle the wonderful artistry of this remarkable bird. He has enjoyed to the fullest the marvelous songs, has been thrilled to the depths by its music, and has often been surprised at the dexterity of this avian artist, but he only questions if these are "conscious" and even "purposive" endeavors, as has been claimed by many writers.

And so he would suggest that perhaps the Mockingbird is no more of a mimic than the Robin, the Cardinal, or the wren, each of which mimics more or less successfully the songs of its parents. The Mockingbird, however, is outstanding in its remarkable repertoire but is only slightly if at all more remarkable than the Hermit Thrush, or the Brown Thrasher, and others of its close relatives, with which we rarely if ever associate mimicry. Accordingly, it seems probable that all of these birds inherit various neural patterns, which appropriate stimuli activate, thus reproducing the songs characteristic of each species.

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ON THE STATUS OF HARLAN'S HAWK

BY G. EIFRIG

Last June I spent ten days in Northwestern Wisconsin, near Hayward, at the home of Mr. K. W. Kahmann, the Chicago taxidermist.

Here I observed the Clay-colored Sparrow in life, as a breeding bird, for the first time in my life, and noticed the Sharp-tailed Grouse and Brewer's Blackbird to be common residents, showing that here there is a strong infusion of western avifauna. I was equally interested, however, in a collection of mounted raptors which Mr. Kahmann had in his shop. Among them was a large black hawk. It was not the roughleg, as one look at the tarsi showed; nor a Swainson's Hawk, because it had the four, instead of the three, outer primaries notched. It turned out to be a typical Harlan's Hawk (*Buteo borealis harlani*).

After reaching home with the specimen in my possession, I consulted all available literature on the status of this hawk, which has

always been looked upon as being rather uncertain. Baird, Brewer, and Ridgway have a long detailed description, also Ridgway in his "Birds of Illinois"; Bendire has notes on the behavior of this species, but no description. Mrs. Bailey, in her "Handbook of the Birds of the Western United States" does not mention it, but Chapman in his "Handbook" has it. Taverner, in his "Birds of Western Canada" expresses the opinion that Harlan's Hawk is only a color phase of the Western Redtail (*Buteo borealis calurus*), and his opinion carries considerable weight because he probably gets more material of these species than most collectors or museums.

However, the question as to the status of Harlan's Hawk has recently acquired a new phase by the findings of Swarth and Brooks in the Atlin region in Northern British Columbia. This is published in their "Report on a Collection of Birds and Mammals from the Atlin Region, Northern British Columbia", 1926. To their surprise and the readers' surprise, they found Harlan's Hawk to be the only species of *Buteo* breeding there. Thus, for the first time a definite breeding range has been found. All the previous records seem to be winter and migration records from the southern and central states, never a breeding record. This also holds good for the first of all records, that by Audubon, whose statement that the bird or birds he got had bred near St. Francisville, Louisiana, is evidently based on hearsay. Beyer, Allison and Kopman, in their "List of the Birds of Louisiana" (1908, p. 442) say that they have no evidence of this bird breeding or ever having bred in Louisiana. No wonder the status of Harlan's Hawk was rather hazy in character. But this uncertainty now seems to have been largely swept away by the finding of a definite breeding ground of this form.

Now the question arises, "Are the differences in coloring between Harlan's Hawk and the melanistic phase of the Western Redtail pronounced enough and constant enough to justify the belief that Harlan's Hawk is a distinct subspecies?" We think they are.

First, there is much more white in the plumage of Harlan's Hawk than in the Western Redtail. In fact, many of the feathers on the neck and breast have only a rather small arrowhead-like black mark, the larger part of the feathers being snowy white. This is not true to nearly the same extent in *calurus*.

Second, there is no brown on breast and belly in Harlan's Hawk as is true of *calurus*.

Third, there is an utter lack of barring on the tibial feathers in *harlani*, which seems to be diagnostic for *calurus* in any color phase.

Fourth, the tail of *harlani* is decidedly different from that of *calurus*. The latter in its tail always shows its relationship with the Western Redtail, by the larger amount of reddish brown on this member. The tail of Harlan's Hawk shows next to no brown, but only slight traces of it and gray marks *longitudinally* arranged. The tail is also more square than in *calurus*. A peculiar condition was brought out by Swarth and Brooks' investigations, inasmuch as they found one of their specimens, undoubtedly *harlani*, to have only three notched primaries instead of four. Therefore, the conclusion seems to me to be warranted that *Buteo borealis harlani* is entitled to subspecific, if not to specific, rank.

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TRAILL'S FLYCATCHER IN SOUTHERN MICHIGAN

BY WM. G. FARGO

Until 1927 I had not discovered Traill's Flycatcher (*Empidonax trailli trailli**) breeding in Jackson County, Michigan, which is in the latitude of Detroit. For the past five years I have searched the woods and marshes of this county for nests in general and have always found fairly common: *E. virescens*, *E. minimus*, *Myiochanes virens*, and *Sayornis phoebe* as breeding birds, but until 1927 never *E. t. trailli*.

On June 1, 1927, along a sluggish spring brook, bordered with willow brush, *Cornus*, etc., winding through marshes in the northwest part of this county I saw two *Empidonaces* a quarter of mile apart that appeared to be *E. t. trailli*. On June 6 I saw one pair of these birds beginning a nest at the same place where one was first seen. This nest was about six feet up in an upright crotch of willow bushes on the creek bank. Going a quarter of a mile down stream I collected a male *Empidonax* that subsequently was identified by Dr. H. C. Oberholser as *Empidonax trailli trailli*.

On June 27, going to the above locality, I found that the nest I saw being started was not completed, but further down the creek I found a nest of *E. t. trailli*, with one of the adults hovering about. The nest was three feet, ten inches above the ground in an upright, multiple crotch of a one-inch elm sprout, and contained three young birds about two days old and two creamy white eggs with cinnamon brown spots in

*In the Ohio Journal of Science, Vol. XVIII, No. 3 (Jan., 1918), p. 85 and following, Dr. H. C. Oberholser points out that the type locality of *Empidonax trailli trailli* (Audubon) was within the range of the eastern form, hence *E. t. alnorum* (Brewster) becomes a synonym. The western form Dr. Oberholser proposes to call *E. t. brewsteri*. In the present paper the change of name thus proposed is used.—W. G. F.